Signify Classified - Internal

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P1590683

Luminaire Tested: 24CGTX-45-B50-HCD

Issue Date: 9/4/2026

Report Generated By 670265710 / DESKTOP-98SHLC4

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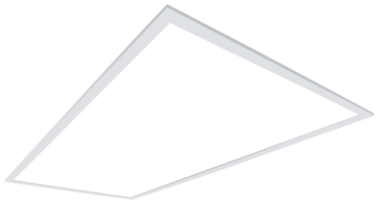
Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1590683
	TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2510-581-29)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	9/4/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	24CGTX-45-B50-HCD
Description:	2X4 4500 LUMEN CGTX TROFFER WITH BIO UP LEDS AT 5000K CCT WITH FROSTED SMOOTH LENS
Light Source:	5000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4449.9 lumens
Efficiency:	N/A
Efficacy:	113.2 lumens/watt
Spacing Criteria (0/90/45):	1.27 / 1.27 / 1.39
Luminous Opening:	Rectangular (W 2' x L: 4' x H: 0')
CIE Type:	Direct
Input Watts (W):	39.3
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

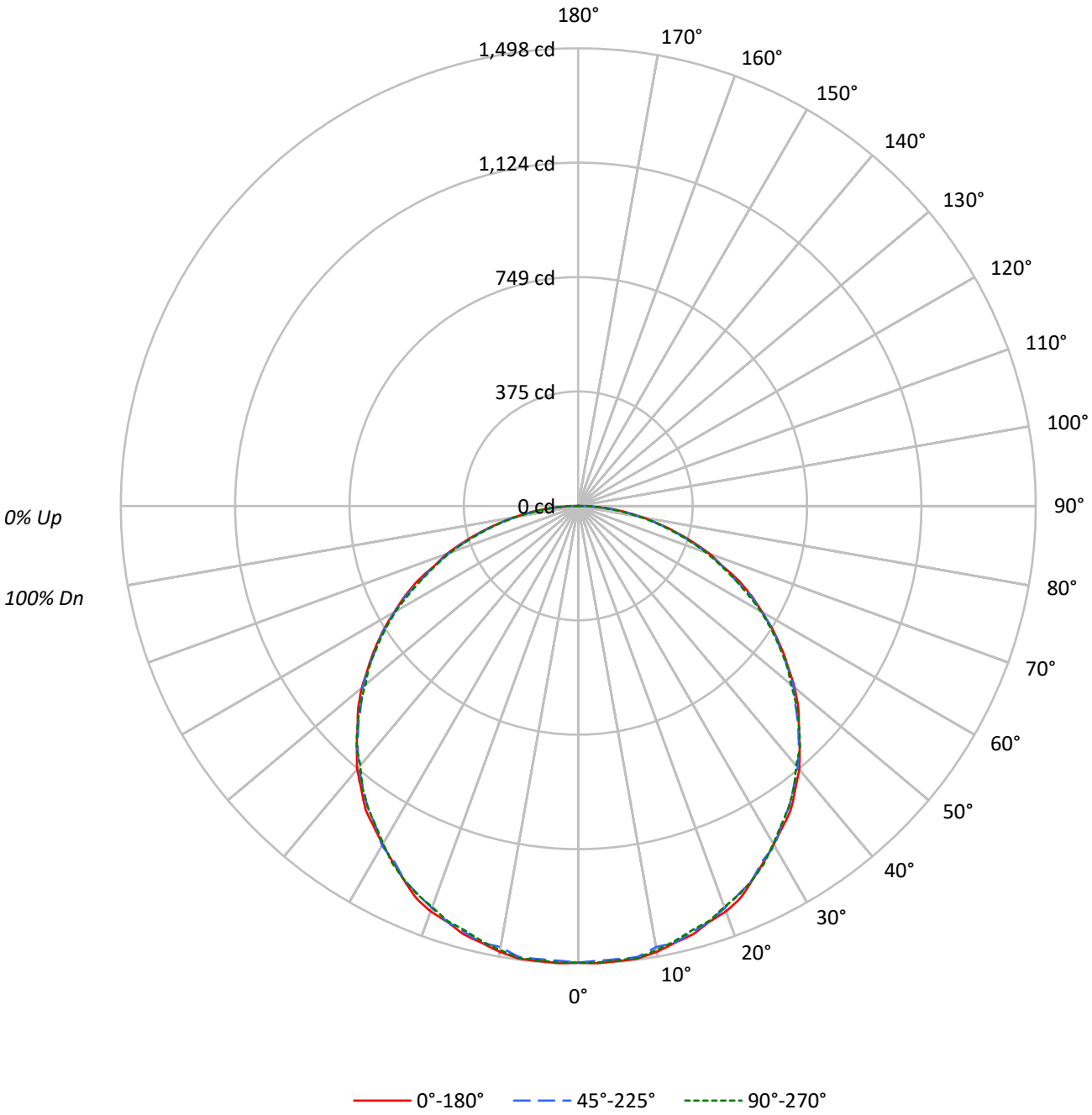


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Scaled Data Report

TEST NUMBER: P1590683
CATALOG NUMBER: 24CGTX-45-B50-HCD

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	79	70	63	87	77	69	63	74	67	62	71	65	61	69	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	36	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2011	2011	2011
5°	2020	2011	2016
10°	2025	2003	2017
15°	2022	2011	2003
20°	2023	2005	2001
25°	2005	2003	2004
30°	1988	1996	1983
35°	1994	1975	1975
40°	1978	1963	1949
45°	1944	1938	1945
50°	1935	1925	1903
55°	1905	1890	1886
60°	1872	1866	1857
65°	1847	1798	1790
70°	1798	1769	1750
75°	1720	1681	1669
80°	1629	1597	1578
85°	1510	1434	1396

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 47.5°
Luminance: 1947 cd/sqm

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TEST NUMBER: P1590683
CATALOG NUMBER: 24CGTX-45-B50-HCD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.1	3.2
10°-20°	407.8	9.2
20°-30°	621.1	14.0
30°-40°	753.4	16.9
40°-50°	787.4	17.7
50°-60°	722.7	16.2
60°-70°	564.3	12.7
70°-80°	344.3	7.7
80°-90°	107.0	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1170.9	26.3
0°-40°	1924.2	43.2
0°-60°	3434.4	77.2
0°-90°	4449.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4449.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1496	1497	1489	1497	1492	142
15°	1452	1451	1444	1444	1438	409
25°	1351	1348	1349	1343	1350	623
35°	1214	1210	1202	1204	1202	757
45°	1022	1020	1018	1023	1022	791
55°	812	810	806	811	804	726
65°	580	573	565	566	562	570
75°	331	330	323	322	321	349
85°	98	96	93	94	90	110
90°	0	0	0	0	0	

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Scaled Data Report

TEST NUMBER: P1590683
CATALOG NUMBER: 24CGTX-45-B50-HCD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1494.9	*1494.9*	1494.9	1494.9	1494.9
2.5°	*1498.2*	*1508.8*	*1490.0*	*1491.7*	*1495.7*
5°	1495.7	*1497.4*	1489.2	1497.4	1492.5
7.5°	1494.9	*1486.8*	1489.2	1485.1	1492.5
10°	1481.9	*1478.6*	1466.4	1474.5	1476.2
12.5°	1464.8	*1458.3*	1464.0	1462.3	1459.1
15°	1451.7	*1450.9*	1443.6	1443.6	1437.9
17.5°	1427.3	*1415.1*	1427.3	1422.4	1424.8
20°	1412.6	*1398.0*	1400.4	1408.6	1397.2
22.5°	1389.0	*1382.5*	1375.2	1365.4	1376.8
25°	1350.7	*1347.5*	1349.1	1343.4	1349.9
27.5°	1314.1	*1312.4*	1308.4	1319.8	1318.9
30°	1279.8	*1287.2*	1284.7	1282.3	1276.6
32.5°	1245.6	*1246.4*	1237.5	1244.0	1237.5
35°	1213.9	*1209.8*	1202.4	1204.1	1202.4
37.5°	1167.4	*1165.8*	1158.5	1158.5	1160.9
40°	1125.9	*1116.9*	1117.7	1112.0	1109.6
42.5°	1072.9	*1072.9*	1068.8	1064.8	1074.5
45°	1021.6	*1020.0*	1018.3	1023.2	1022.4
47.5°	977.6	*971.9*	964.6	967.0	970.3
50°	924.6	*920.6*	919.8	918.1	909.2
52.5°	866.0	*864.4*	862.7	865.2	861.9
55°	812.2	*809.8*	805.7	811.4	804.1
57.5°	756.0	*751.9*	754.4	747.9	747.9
60°	695.7	*699.8*	693.3	690.0	690.0
62.5°	640.3	*632.2*	635.4	627.3	624.8
65°	580.0	*572.7*	564.6	566.2	562.1
67.5°	508.4	*512.4*	507.5	505.1	501.8
70°	457.0	*456.2*	449.7	445.6	444.8
72.5°	392.7	*392.7*	382.9	385.3	381.3
75°	330.8	*329.9*	323.4	321.8	321.0
77.5°	267.2	*270.5*	264.8	259.9	259.9
80°	210.2	*209.4*	206.1	202.9	203.7
82.5°	154.8	*150.7*	149.9	147.5	146.6
85°	97.8	*96.1*	92.9	94.5	90.4
87.5°	45.6	*44.8*	46.4	46.4	46.4
90°	0.0	*0.0*	0.0	0.0	0.0

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TEST NUMBER: P1590683
CATALOG NUMBER: 24CGTX-45-B50-HCD

CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.43	16.09	14.79	16.40	16.72	14.38	16.04	14.74	16.36	16.67
	3H	16.37	17.88	16.74	18.20	18.56	16.29	17.79	16.66	18.12	18.48
	4H	17.14	18.56	17.54	18.91	19.28	17.03	18.46	17.43	18.80	19.18
	6H	17.74	19.06	18.15	19.42	19.81	17.61	18.94	18.02	19.30	19.69
	8H	17.95	19.22	18.38	19.61	20.00	17.82	19.08	18.24	19.47	19.87
	12H	18.11	19.32	18.54	19.70	20.13	17.96	19.17	18.39	19.55	19.98
4H	2H	15.08	16.50	15.48	16.85	17.22	15.04	16.46	15.44	16.81	17.19
	3H	17.26	18.46	17.67	18.85	19.25	17.18	18.38	17.59	18.78	19.18
	4H	18.17	19.26	18.60	19.67	20.10	18.07	19.15	18.50	19.57	20.00
	6H	18.91	19.87	19.37	20.31	20.76	18.79	19.74	19.24	20.18	20.63
	8H	19.18	20.08	19.64	20.52	20.98	19.05	19.94	19.50	20.38	20.84
	12H	19.39	20.20	19.87	20.67	21.14	19.24	20.04	19.72	20.52	20.99
8H	4H	18.52	19.41	18.98	19.85	20.32	18.43	19.32	18.89	19.76	20.23
	6H	19.40	20.15	19.90	20.64	21.11	19.29	20.03	19.78	20.52	20.99
	8H	19.76	20.43	20.27	20.94	21.42	19.63	20.30	20.14	20.81	21.29
	12H	20.06	20.65	20.57	21.14	21.70	19.92	20.51	20.42	21.00	21.56
12H	4H	18.57	19.37	19.05	19.84	20.31	18.48	19.29	18.96	19.76	20.23
	6H	19.48	20.15	19.99	20.65	21.14	19.37	20.04	19.87	20.54	21.03
	8H	19.90	20.49	20.41	20.98	21.54	19.78	20.37	20.28	20.86	21.42

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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2510-581-5-R2

Test Date: 01/21/2026

Luminaire Tested: 24CGTX-55-B50-HCD

Data in this report applies to families of products including 24CGTX-55HE

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

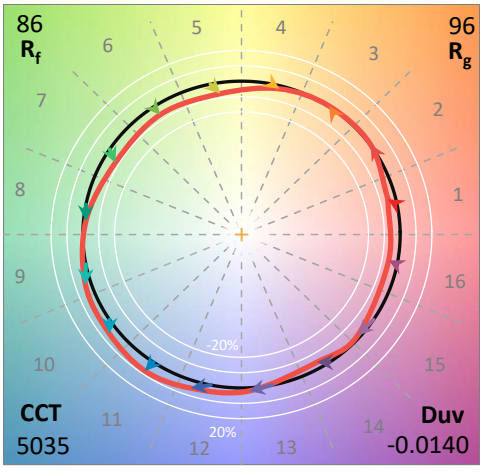
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2510-581-5-R2
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	07/28/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Metalux
Catalog Number:	**24CGTX-55-B50-HCD**
Description:	*THIS IS A REVISION OF REPORT SP1-2510-581-5-R2 TO UPDATE THE CATALOG INFORMATION* 2X4 CGTX 5500 lumen with BioUp Boards with fixed CCT 5000K - Control Volatge at 2V

Spectral Parameters

CCT (K):	5035
CIE u':	0.2209
CIE v':	0.4693
Duv:	-0.0140
CIE x:	0.3418
CIE y:	0.3227
CIE z:	0.3355
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	0
Purity:	0
Rf:	86.3
Rg:	96

CRI (Ra):	85.1
R1:	90.5
R2:	85.3
R3:	82.8
R4:	87.5
R5:	88.5
R6:	79.4
R7:	82.2
R8:	84.6
R9:	82.5
R10:	72.3
R11:	87.7
R12:	69.3
R13:	88.3
R14:	92.1
R15:	92.3



Test Conditions

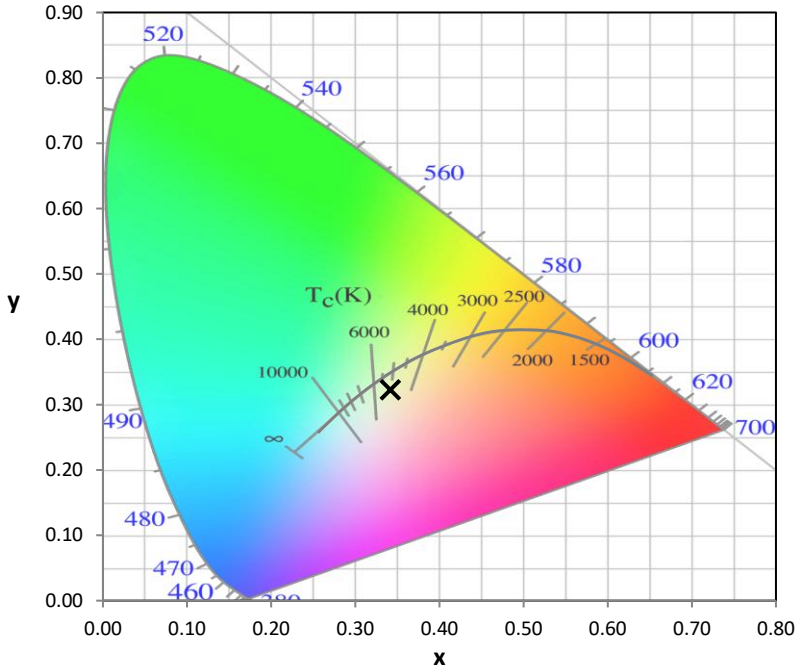
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	25.1

REPORT NUMBER: SP1-2510-581-5-R2

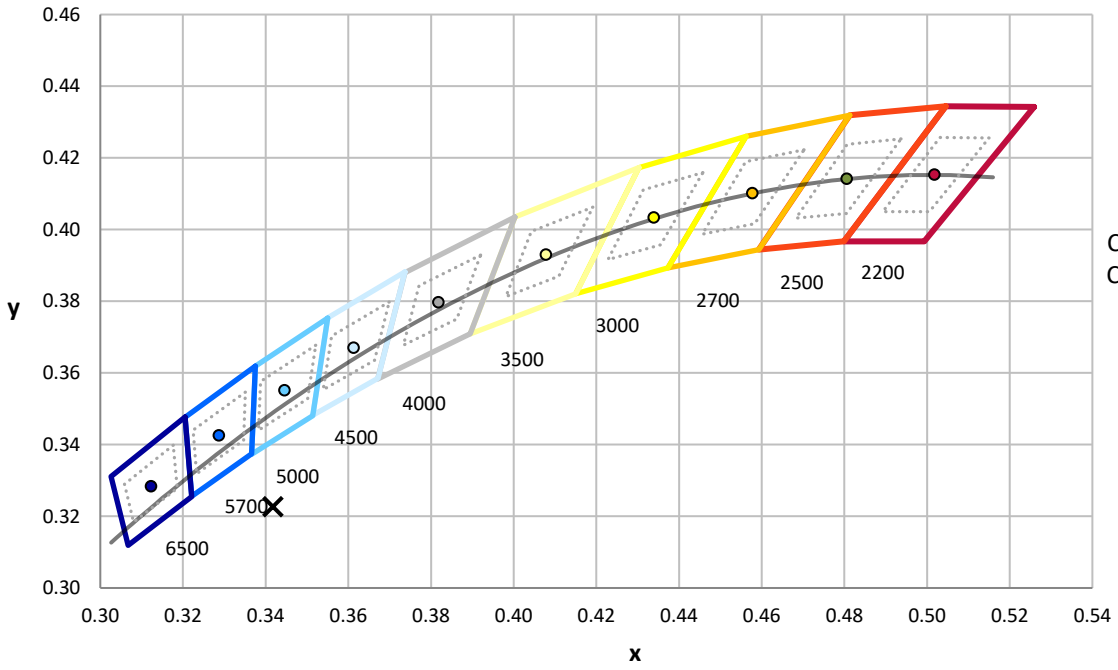
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2510-581-5-R2

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

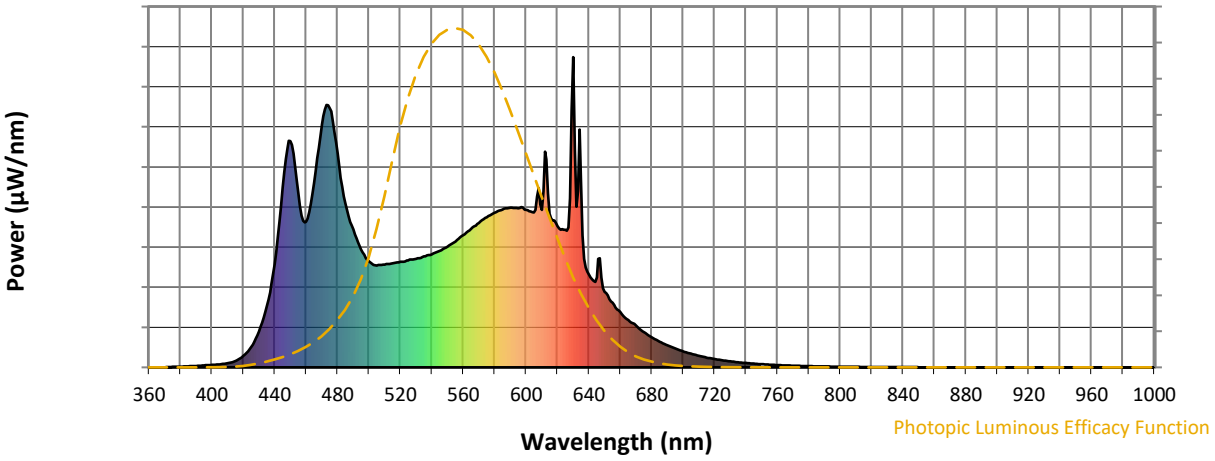


CCT = 5035K
CIE x = 0.3418
CIE y = 0.3227
Duv = -0.0140

Point lies outside the range

REPORT NUMBER: SP1-2510-581-5-R2

Photopic Flux vs. Wavelength

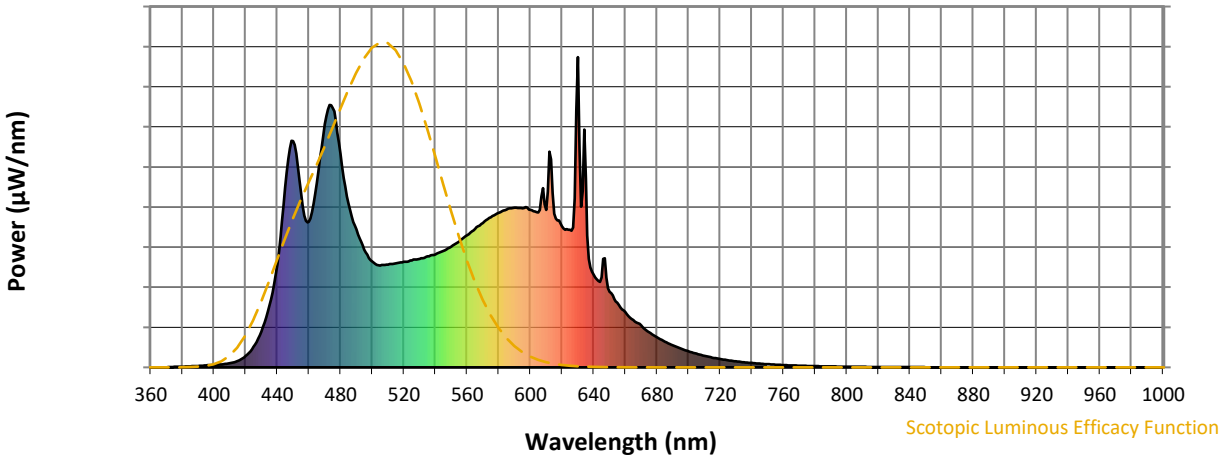


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	444	NR	620	455	NR	750	10	NR	880	0	NR
365	0	NR	495	380	NR	625	444	NR	755	9	NR	885	0	NR
370	0	NR	500	341	NR	630	1000	NR	760	7	NR	890	0	NR
375	2	NR	505	328	NR	635	607	NR	765	6	NR	895	0	NR
380	2	NR	510	331	NR	640	299	NR	770	5	NR	900	0	NR
385	3	NR	515	335	NR	645	290	NR	775	5	NR	905	0	NR
390	5	NR	520	340	NR	650	243	NR	780	4	NR	910	0	NR
395	6	NR	525	344	NR	655	208	NR	785	3	NR	915	0	NR
400	8	NR	530	350	NR	660	178	NR	790	3	NR	920	0	NR
405	10	NR	535	358	NR	665	152	NR	795	3	NR	925	0	NR
410	13	NR	540	364	NR	670	136	NR	800	2	NR	930	0	NR
415	20	NR	545	375	NR	675	113	NR	805	2	NR	935	0	NR
420	37	NR	550	389	NR	680	97	NR	810	2	NR	940	0	NR
425	66	NR	555	405	NR	685	83	NR	815	1	NR	945	0	NR
430	115	NR	560	426	NR	690	71	NR	820	1	NR	950	0	NR
435	199	NR	565	447	NR	695	61	NR	825	1	NR	955	0	NR
440	332	NR	570	466	NR	700	52	NR	830	1	NR	960	0	NR
445	580	NR	575	484	NR	705	44	NR	835	1	NR	965	0	NR
450	730	NR	580	498	NR	710	37	NR	840	1	NR	970	0	NR
455	561	NR	585	508	NR	715	31	NR	845	1	NR	975	0	NR
460	469	NR	590	514	NR	720	27	NR	850	1	NR	980	0	NR
465	593	NR	595	513	NR	725	23	NR	855	0	NR	985	0	NR
470	784	NR	600	507	NR	730	19	NR	860	0	NR	990	0	NR
475	836	NR	605	499	NR	735	16	NR	865	0	NR	995	0	NR
480	689	NR	610	507	NR	740	14	NR	870	0	NR	1000	0	NR
485	529	NR	615	495	NR	745	12	NR	875	0	NR			

REPORT NUMBER: SP1-2510-581-5-R2

Scotopic Flux vs. Wavelength

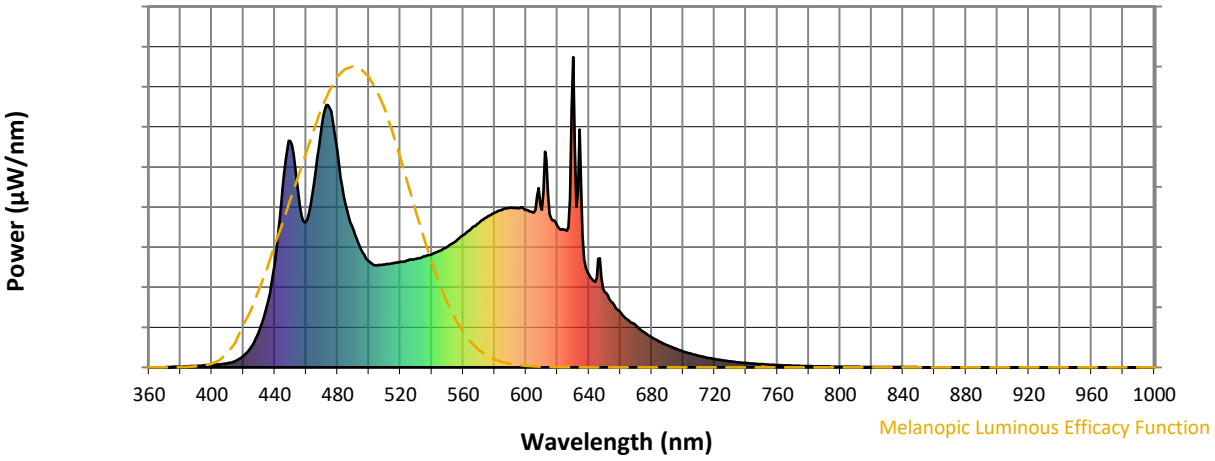


Scotopic Lumens: NR **S/P: 2.29**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	444	NR	620	455	NR	750	10	NR	880	0	NR
365	0	NR	495	380	NR	625	444	NR	755	9	NR	885	0	NR
370	0	NR	500	341	NR	630	1000	NR	760	7	NR	890	0	NR
375	2	NR	505	328	NR	635	607	NR	765	6	NR	895	0	NR
380	2	NR	510	331	NR	640	299	NR	770	5	NR	900	0	NR
385	3	NR	515	335	NR	645	290	NR	775	5	NR	905	0	NR
390	5	NR	520	340	NR	650	243	NR	780	4	NR	910	0	NR
395	6	NR	525	344	NR	655	208	NR	785	3	NR	915	0	NR
400	8	NR	530	350	NR	660	178	NR	790	3	NR	920	0	NR
405	10	NR	535	358	NR	665	152	NR	795	3	NR	925	0	NR
410	13	NR	540	364	NR	670	136	NR	800	2	NR	930	0	NR
415	20	NR	545	375	NR	675	113	NR	805	2	NR	935	0	NR
420	37	NR	550	389	NR	680	97	NR	810	2	NR	940	0	NR
425	66	NR	555	405	NR	685	83	NR	815	1	NR	945	0	NR
430	115	NR	560	426	NR	690	71	NR	820	1	NR	950	0	NR
435	199	NR	565	447	NR	695	61	NR	825	1	NR	955	0	NR
440	332	NR	570	466	NR	700	52	NR	830	1	NR	960	0	NR
445	580	NR	575	484	NR	705	44	NR	835	1	NR	965	0	NR
450	730	NR	580	498	NR	710	37	NR	840	1	NR	970	0	NR
455	561	NR	585	508	NR	715	31	NR	845	1	NR	975	0	NR
460	469	NR	590	514	NR	720	27	NR	850	1	NR	980	0	NR
465	593	NR	595	513	NR	725	23	NR	855	0	NR	985	0	NR
470	784	NR	600	507	NR	730	19	NR	860	0	NR	990	0	NR
475	836	NR	605	499	NR	735	16	NR	865	0	NR	995	0	NR
480	689	NR	610	507	NR	740	14	NR	870	0	NR	1000	0	NR
485	529	NR	615	495	NR	745	12	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 5.37**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	444	NR	620	455	NR	750	10	NR	880	0	NR
365	0	NR	495	380	NR	625	444	NR	755	9	NR	885	0	NR
370	0	NR	500	341	NR	630	1000	NR	760	7	NR	890	0	NR
375	2	NR	505	328	NR	635	607	NR	765	6	NR	895	0	NR
380	2	NR	510	331	NR	640	299	NR	770	5	NR	900	0	NR
385	3	NR	515	335	NR	645	290	NR	775	5	NR	905	0	NR
390	5	NR	520	340	NR	650	243	NR	780	4	NR	910	0	NR
395	6	NR	525	344	NR	655	208	NR	785	3	NR	915	0	NR
400	8	NR	530	350	NR	660	178	NR	790	3	NR	920	0	NR
405	10	NR	535	358	NR	665	152	NR	795	3	NR	925	0	NR
410	13	NR	540	364	NR	670	136	NR	800	2	NR	930	0	NR
415	20	NR	545	375	NR	675	113	NR	805	2	NR	935	0	NR
420	37	NR	550	389	NR	680	97	NR	810	2	NR	940	0	NR
425	66	NR	555	405	NR	685	83	NR	815	1	NR	945	0	NR
430	115	NR	560	426	NR	690	71	NR	820	1	NR	950	0	NR
435	199	NR	565	447	NR	695	61	NR	825	1	NR	955	0	NR
440	332	NR	570	466	NR	700	52	NR	830	1	NR	960	0	NR
445	580	NR	575	484	NR	705	44	NR	835	1	NR	965	0	NR
450	730	NR	580	498	NR	710	37	NR	840	1	NR	970	0	NR
455	561	NR	585	508	NR	715	31	NR	845	1	NR	975	0	NR
460	469	NR	590	514	NR	720	27	NR	850	1	NR	980	0	NR
465	593	NR	595	513	NR	725	23	NR	855	0	NR	985	0	NR
470	784	NR	600	507	NR	730	19	NR	860	0	NR	990	0	NR
475	836	NR	605	499	NR	735	16	NR	865	0	NR	995	0	NR
480	689	NR	610	507	NR	740	14	NR	870	0	NR	1000	0	NR
485	529	NR	615	495	NR	745	12	NR	875	0	NR			

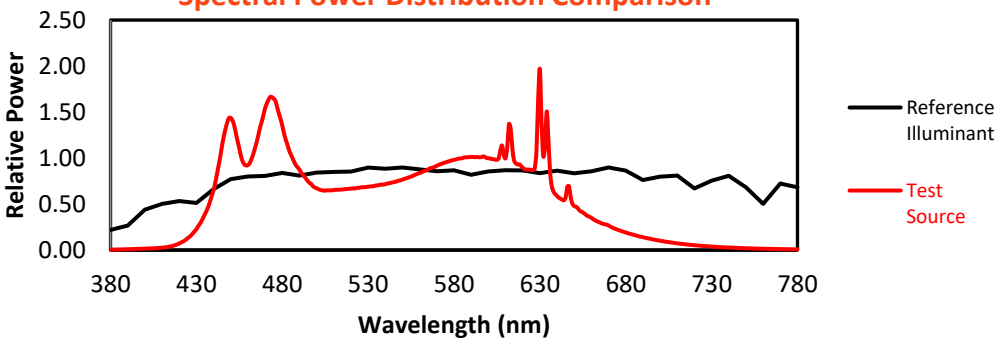
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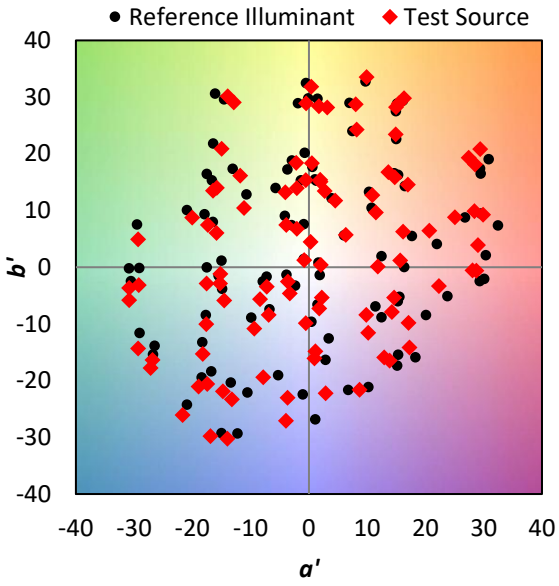
Summary

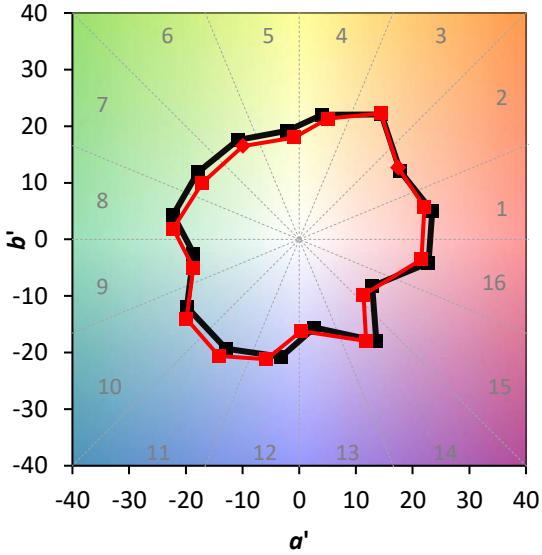
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R_g = 96
CIE R_a = 85.1
R_9 = 82.5

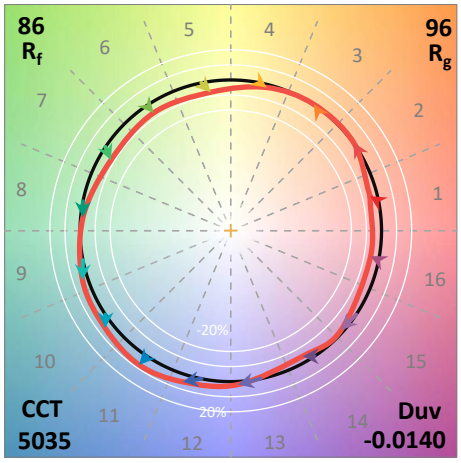
Spectral Power Distribution Comparison

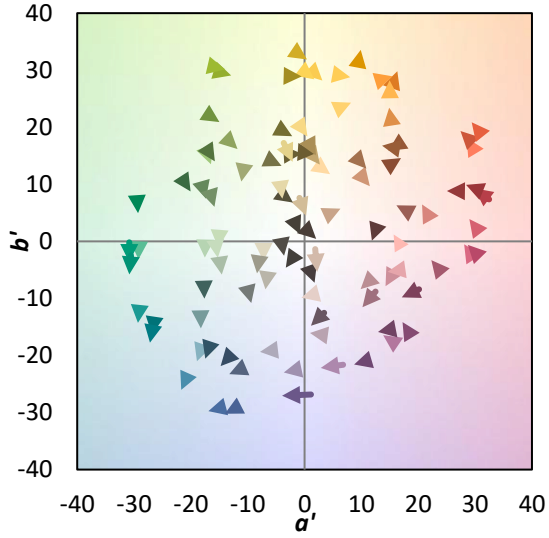


Color Vector Graphics







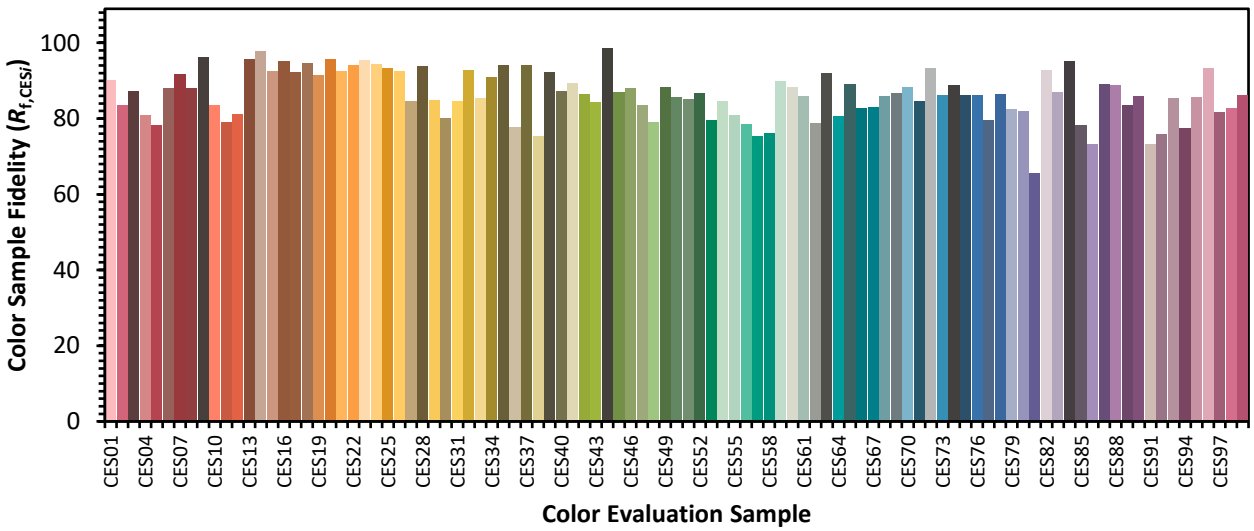


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Individual Sample Fidelity Index ($R_{f,i}$)

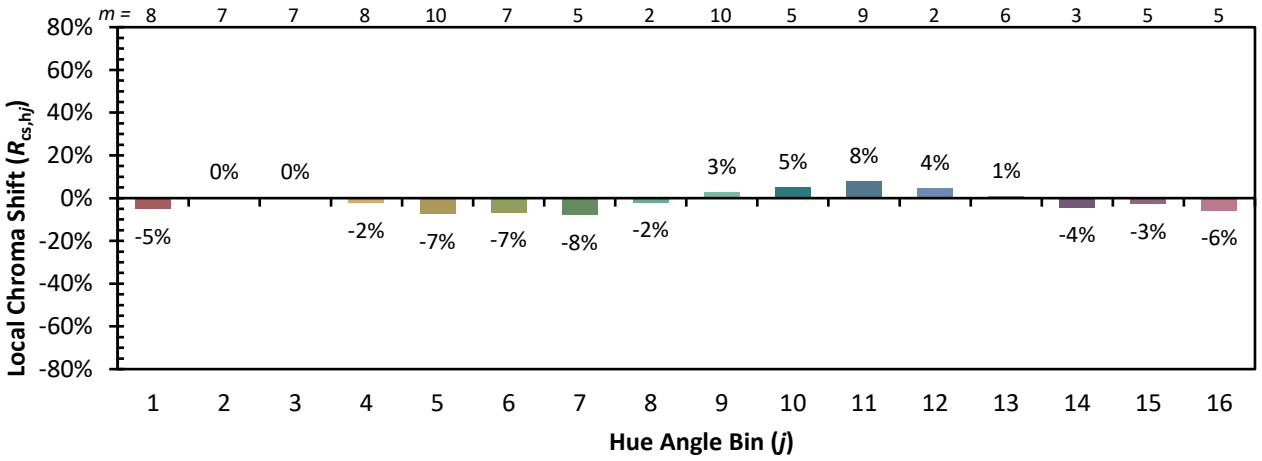
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CES02 = 62	CES27 = 85	CES52 = 87	CES77 = 80
CES03 = 31	CES28 = 94	CES53 = 80	CES78 = 86
CES04 = 69	CES29 = 85	CES54 = 85	CES79 = 82
CES05 = 48	CES30 = 80	CES55 = 81	CES80 = 82
CES06 = 50	CES31 = 85	CES56 = 78	CES81 = 66
CES07 = 41	CES32 = 93	CES57 = 75	CES82 = 93
CES08 = 40	CES33 = 86	CES58 = 76	CES83 = 87
CES09 = 29	CES34 = 91	CES59 = 90	CES84 = 95
CES10 = 74	CES35 = 94	CES60 = 88	CES85 = 78
CES11 = 57	CES36 = 78	CES61 = 86	CES86 = 73
CES12 = 63	CES37 = 94	CES62 = 79	CES87 = 89
CES13 = 43	CES38 = 75	CES63 = 92	CES88 = 89
CES14 = 74	CES39 = 92	CES64 = 81	CES89 = 83
CES15 = 71	CES40 = 87	CES65 = 89	CES90 = 86
CES16 = 47	CES41 = 89	CES66 = 83	CES91 = 73
CES17 = 49	CES42 = 86	CES67 = 83	CES92 = 76
CES18 = 56	CES43 = 84	CES68 = 86	CES93 = 85
CES19 = 71	CES44 = 99	CES69 = 87	CES94 = 77
CES20 = 66	CES45 = 87	CES70 = 88	CES95 = 86
CES21 = 85	CES46 = 88	CES71 = 85	CES96 = 93
CES22 = 77	CES47 = 84	CES72 = 93	CES97 = 82
CES23 = 91	CES48 = 79	CES73 = 86	CES98 = 83
CES24 = 90	CES49 = 88	CES74 = 89	CES99 = 86
CES25 = 70	CES50 = 86	CES75 = 86	

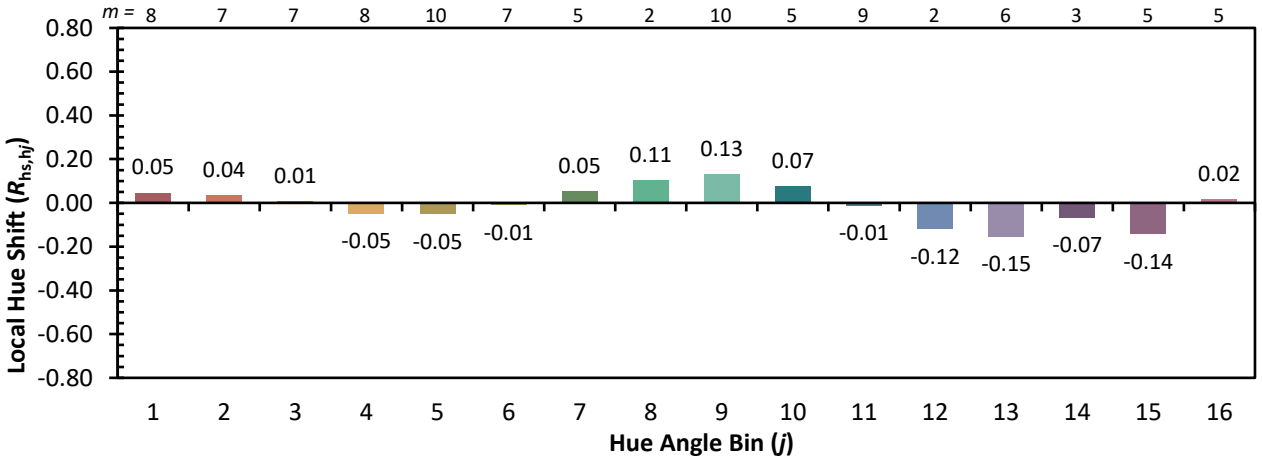


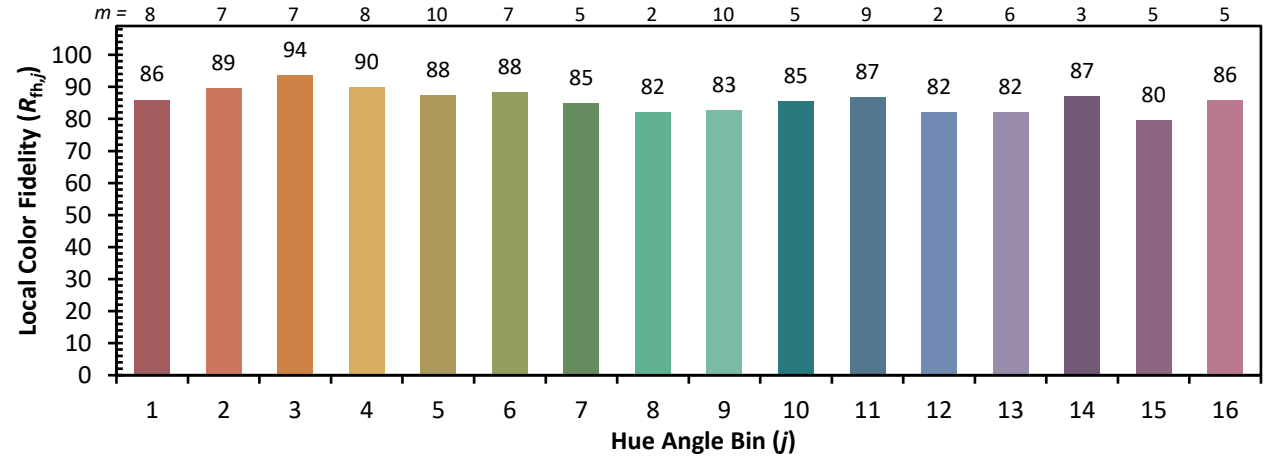
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Color Rendition by Hue-Angle Bin



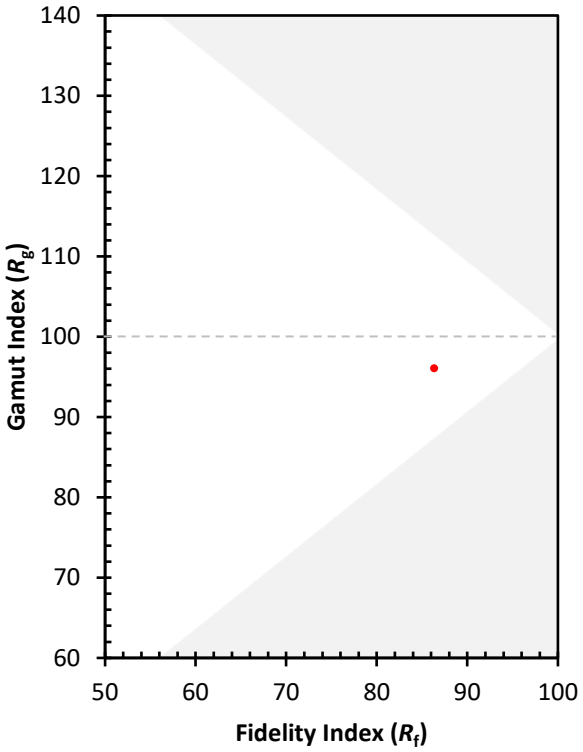


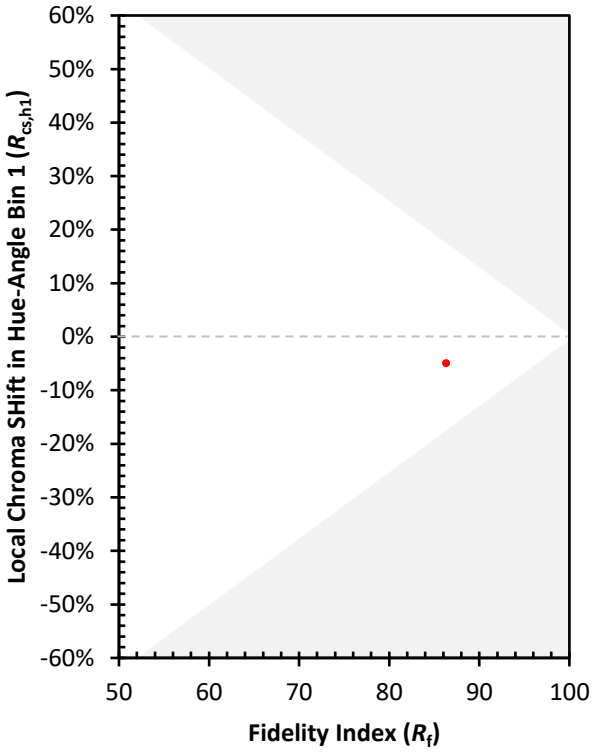


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Measure Comparisons





(END OF REPORT)